

REMARKS

In the Office Action of February 19, 2004, claims 23-25 and 28-30 were rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent No. 3,771,658 (hereinafter referred to as Brumsfield '658). In addition, claims 26-27 and 31-32 were rejected under 35 U.S.C. 103(a) as being unpatentable over Brumsfield '658 as applied to independent claims 23 and 28, and further in view of U.S. Patent No. 4,790,942 (hereinafter referred to Shmidt '942). Applicant addresses each of these rejections in turn.

First, it is respectfully submitted that independent claims 23 and 28 and their respective dependant claims are not anticipated by Brumsfield '658. Independent claim 23 requires the blood processing device to be comprised of "a gap defined between an inner surface that is located about an axis and an outer surface that is concentric with the inner surface." This language is also recited verbatim in independent claim 28. As set forth below, Brumsfield '658 patent does not describe, teach, or suggest this aforesaid concentric configuration as presently stated in the claims; indeed, it is respectfully submitted that Brumsfield '658 is directed to a structure that is intentionally "eccentric" and not concentric.

Brumsfield '658 states that the interior rotor shaft (11) is arranged "in a precisely fixed eccentricity (32) parallel with the internal axis of symmetry (33) of the precision diameter (35) of the internally cylindrical stator housing (23)." (See col. 3, lines 8-12). To the contrary, the presently

claimed invention requires that the outer surface be concentric with the inner surface. Therefore, it is respectfully submitted that Brumsfield '658 does not anticipate independent claims 22 and 28 and their respective dependent claims, which include these independent claims by reference.

In the Office Action, dependent claims 26-27 and 31-32 were rejected as being rendered obvious by Brumsfield '658, as applied to independent claims 23 and 28, in further view of Shmidt '942. It is respectfully submitted that the patents, as cited by the Examiner, whether considered alone or in combination, do not teach or suggest the subject matter set forth in the claims. The presently claimed invention requires that the outer surface be concentric with the inner surface. This structure is unlike anything shown or suggested in the Brumsfield '658 patent. As explained above, Brumsfield '658 states that the interior rotor shaft (11) is arranged "in a precisely fixed eccentricity (32)." (See col. 3, lines 8-12).

Before one skilled in the art can appreciate the benefits of the concentric alignment of the outer and inner surfaces of the presently claimed invention, he/she also needs to appreciate the application to which the present invention is directed: the removal of waste from the blood of an individual, potentially taking advantage of Taylor vortices created in the gap to enhance the performance of the hemodialysis membrane. In Brumsfield '658, the inner rotor shaft (11) is purposefully aligned eccentrically to produce a laminar pumping effect, a primary goal of the invention. (See col. 5, lines 37-41). In

fact, the specification refers to the apparatus depicted in Figures 1-3 of Brumsfield '658 as "the blood transport pump (10)," or "the pump (10)." (See col. 2, lines 34-37). Even with improper use of hindsight gained from the present application, it is respectfully submitted that the device of Brumsfield '658 simply is not suitable to achieve the Taylor vertices as achieved by the present invention.

Schmidt '942 is cited in the Office Action solely with respect to the use of membranes on both the inner and outer surfaces, and makes only passing reference to "dialysis." Consequently, even if Brumsfield '658 were combined with Schmidt '942, as cited by the Examiner, they would not render obvious the invention as currently claimed.

For all of the above reasons, it is respectfully requested that the pending claims be reconsidered and allowed.

Respectfully submitted,

Date: June 21, 2004

By: 

Gary W. McFarron
Registration No.: 27,357
Cook, Alex, McFarron, Manzo,
Cummings & Mehler, Ltd.,
200 West Adams St., Suite 2850
Chicago, IL 60606
Phone: (312) 236-8500

Attorneys for Applicant